

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1-12 (Canceled).

13. (Withdrawn) A device for joining faces of parts having great longitudinal extension by friction welding, the device comprising:

first and second clamping arrangements structured and arranged to position ends of the parts against one another;

at least one of the first and second clamping arrangements being axially movable with respect to another of the first and second clamping arrangements; and

at least one of the first and second clamping arrangements being movable along a direction that is parallel to a part cross-sectional plane defined by an end face of one of the parts.

14. (Withdrawn) The device of claim 13, wherein the first and second clamping arrangements are structured and arranged to axially align the parts.

15. (Withdrawn) The device of claim 13, wherein the parts comprise rods having a profiled cross section.

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16. (Withdrawn) The device of claim 15, wherein the rods comprise rails.
17. (Withdrawn) The device of claim 13, wherein at least one of the first and second clamping arrangements is movable in a circulating manner around a joint axis.
18. (Withdrawn) The device of claim 13, wherein the first and second clamping arrangements are movable in the same direction in a circulating manner around a joint axis.
19. (Withdrawn) The device of claim 13, wherein the first and second clamping arrangements are movable in the same direction in a circulating manner around a joint axis and while having an opposite spacing.
20. (Withdrawn) The device of claim 13, further comprising first and second drivable eccentric arrangements.
21. (Withdrawn) The device of claim 20, wherein movement along the direction parallel to the part cross-sectional plane is movably adjustable by the first and second drivable eccentric arrangements.
22. (Withdrawn) The device of claim 20, wherein the first and second drivable eccentric arrangements are structured and arranged to axially align the first and second

clamping arrangements.

23. (Withdrawn) The device of claim 20, wherein the first and second drivable eccentric arrangements are structured and arranged to axially align the first and second clamping arrangements in a resting position.

24. (Withdrawn) The device of claim 13, further comprising two drivable eccentric arrangements, wherein the two drivable eccentric arrangements is operatively connected to at least one of the first and second clamping arrangements.

25. (Withdrawn) The device of claim 13, further comprising at least one adjustable eccentric arrangement driving one of the first and second clamping arrangements.

26. (Withdrawn) The device of claim 25, wherein the at least one adjustable eccentric arrangement is one of positioned on a shaft adjustable with freedom of movement.

27. (Withdrawn) The device of claim 25, further comprising at least one device for controlling the at least one adjustable eccentric arrangement.

28. (Withdrawn) The device of claim 13, further comprising first and second adjustable eccentric arrangements driving the first and second clamping arrangements one

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of in the same direction and in an opposite direction.

29. (Withdrawn) The device of claim 28, further comprising first and second control devices for controlling the first and second adjustable eccentric arrangements.

30. (Withdrawn) The device of claim 28, wherein the first and second adjustable eccentric arrangements function simultaneously.

31. (Previously Presented) A method for joining parts having a profiled cross-section and a length which is greater than an overall width of the profiled cross-section by friction welding using a device for joining faces of parts having great longitudinal extension by friction welding, the device comprising first and second clamping arrangements structured and arranged to position ends of the parts against one another, at least one of the first and second clamping arrangements being axially movable with respect to another of the first and second clamping arrangements, and at least one of the first and second clamping arrangements being movable along a direction that is parallel to a part cross-sectional plane defined by an end face of one of the parts, the method comprising:

arranging ends of the parts opposite one another, wherein the ends are provided with flat axially normal cross-sectional surfaces;

pressing the cross-sectional surfaces against one another and moving an axis of at least one of the parts relative to an axis of another of the parts, such that face areas of the ends are brought to one of an increased temperature or a joining temperature;

axially aligning the parts; and;
metallically bonding the parts,
wherein, during the pressing, the parts do not rotate and at least one of the ends of the parts is moved around a joint axis in a circulating manner.

32. (Previously Presented) The method of claim 31, further comprising, after the axially aligning, forcing the ends of the parts together.

33. (Previously Presented) A method for joining parts having a profiled cross-section and a length which is greater than an overall width of the profiled cross-section by friction welding, the method comprising:

arranging ends of the parts opposite one another, wherein the ends are provided with flat axially normal cross-sectional surfaces;

pressing the cross-sectional surfaces against one another by moving at least one of the ends axially relative to another of the ends, such that face areas of the ends are brought to one of an increased temperature or a joining temperature;

axially aligning the parts; and
metallically bonding the parts,
wherein, during the pressing, the parts do not rotate and at least one of the ends of the parts is moved around a joint axis in a circulating manner.

34. (Previously Presented) The method of claim 33, further comprising, after the axially aligning, forcing the ends of the parts together to produce an all-over metallic bonding of the ends of the parts.

35. (Previously Presented) The method of claim 33, wherein the pressing produces a weld area and takes place under increased pressure.

36. (Withdrawn) The method of claim 33, wherein the parts comprise rods having a profiled cross section.

37. (Withdrawn) The method of claim 36, wherein the rods comprise rails.

38. (Withdrawn) The method of claim 33, further comprising moving the end of at least one of the parts in a circulating manner to one of increase a temperature and adjust a joint temperature.

39. (Withdrawn) The method of claim 38, further comprising moving the end of at least one of the parts in a circulating manner to adjust a temperature of a joint, whereby the joint is formed between face areas of the ends of the parts.

40. (Withdrawn) The method of claim 33, further comprising moving the ends of the parts relative to a joint axis to cause an increase in temperature.

41. (Withdrawn) The method of claim 33, further comprising moving the ends of the parts around a joint axis.

42. (Withdrawn) The method of claim 33, further comprising moving the ends of the parts in the same direction around a joint axis.

43. (Withdrawn) The method of claim 33, further comprising moving the ends of the parts around a joint axis in a circulating manner.

44. (Withdrawn) The method of claim 33, further comprising moving the ends of the parts relative to an alignment axis to cause an increase in temperature.

45. (Withdrawn) The method of claim 33, further comprising moving the ends of the parts around an alignment axis.

46. (Withdrawn) The method of claim 33, further comprising moving the ends of the parts in the same direction around an alignment axis.

47. (Withdrawn) The method of claim 33, further comprising moving the ends of the parts around an alignment axis in a circulating manner.

48. (Withdrawn) The method of claim 33, further comprising, after the pressing and before the axially aligning, reducing a pressing force.

49. (Withdrawn) The method of claim 48, further comprising, after the reducing, increasing a pressing pressure.

50. (Withdrawn) The method of claim 33, further comprising, before the pressing, pre-heating the ends of the parts.

51. (Withdrawn) The method of claim 33, further comprising, before the pressing, moving the ends relative to each other with a reduced positioning pressure, whereby the moving causes pre-heating of the ends of the parts.

52. (Withdrawn) A device for friction welding parts, the device comprising:
first and second clamping arrangements structured and arranged to position ends of the parts against one another;

at least one of the first and second clamping arrangements being axially movable with respect to another of the first and second clamping arrangements;

first and second moving devices for respectively moving the first and second clamping arrangements along a direction that is parallel to a part cross-sectional plane; and

first and second control devices for controlling movement of the first and second moving devices,

wherein the part cross-sectional plane is define by an end face of one of the parts.

53. (Previously Presented) A method for joining two parts having a length which is greater than an overall width of the profiled cross-section by friction welding using a device for friction welding parts, the device comprising first and second clamping arrangements structured and arranged to position ends of the parts against one another, at least one of the first and second clamping arrangements being axially movable with respect to another of the first and second clamping arrangements, first and second moving devices for respectively moving the first and second clamping arrangements along a direction that is parallel to a part cross-sectional plane, and first and second control devices for controlling movement of the first and second moving devices, wherein the part cross-sectional plane is define by an end face of one of the parts, the method comprising:

clamping the parts in first and second clamping arrangements, the first clamping arrangement surrounding a portion of one of the parts and the second clamping arrangement surrounding a portion of another of the parts;

arranging ends of the two parts opposite one another;

pressing the ends against one another by moving at least one of the ends axially relative to another of the ends;

moving the ends relative to each other along a direction which is parallel to an end surface of at least one of the ends;

axially aligning the parts; and

metallically bonding the ends of the two parts,

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wherein, during the pressing, the parts do not rotate and at least one of the ends of the parts is moved around a joint axis in a circulating manner.

54. (Withdrawn) A device for friction welding parts, the device comprising:
first and second clamping arrangements structured and arranged to position ends of the parts against one another;
at least one of the first and second clamping arrangements being axially movable with respect to another of the first and second clamping arrangements;
first and second eccentric moving devices mounted to a shaft;
the first and second eccentric moving devices respectively moving the first and second clamping arrangements along a direction that is parallel to an end face of at least one of the parts;
a motor driving the shaft; and
first and second control devices for controlling movement of the first and second eccentric moving devices,
wherein the part cross-sectional plane is define by an end face of one of the parts.

55. (Previously Presented) The method of claim 31, further comprising clamping the parts in first and second clamping arrangements, the first clamping arrangement surrounding a portion of one of the parts and the second clamping arrangement surrounding a portion of another of the parts.

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56. (Previously Presented) The method of claim 33, further comprising clamping the parts in first and second clamping arrangements, the first clamping arrangement surrounding a portion of one of the parts and the second clamping arrangement surrounding a portion of another of the parts.